

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*EX PARTE* JONATHAN J. OLIVER ET AL.

APPLICATION NO. 10/650,487

FILING DATE: AUGUST 27, 2003

---

BRIEF ON APPEAL

---

CARR & FERRELL LLP  
2200 GENG ROAD  
PALO ALTO, CA 94303  
T: 650.812.3400  
F: 650.812.3444

ATTORNEY FOR THE APPELLANT  
AND REAL-PARTY-IN-INTEREST



## TABLE OF CONTENTS

REAL-PARTY-IN-INTEREST .....	3
RELATED APPEALS AND INTERFERENCES .....	3
STATUS OF THE CLAIMS .....	3
STATUS OF AMENDMENTS .....	4
SUMMARY OF THE CLAIMED SUBJECT MATTER .....	5
Independent Claim 1.....	5
Independent Claim 20.....	7
Independent Claim 23.....	9
Independent Claim 24.....	10
Independent Claim 28.....	11
Independent Claim 29.....	13
Independent Claim 30.....	14
Independent Claim 31.....	15
GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL.....	17
ARGUMENT .....	18
EACH OF THE CLAIMS RECITE A 'CLASSIFIER' HAVING OR CAPABLE OF HAVING AN ERRONEOUS CLASSIFICATION PROBABILITY OF 'LESS THAN ONE PERCENT' .....	18
A PURPORTED RANGE IN THE CITED ART MUST BE DISCLOSED WITH 'SUFFICIENT SPECIFICITY' .....	19
INHERENCY REQUIRES THAT THE MISSING CLAIM ELEMENT NECESSARILY BE PRESENT IN THE CITED ART.....	20
THE PURPORTED OBVIOUSNESS OF A RANGE REQUIRES A MOTIVATIONAL STATEMENT AS TO THE SAME.....	21
CHASIN IS NOT ENABLED WITH RESPECT TO AN ERRONEOUS CLASSIFICATION PROBABILITY OF 'LESS THAN ONE PERCENT' .....	22
CONCLUSION AND REQUESTED RELIEF .....	23
CLAIMS APPENDIX .....	25
EVIDENCE APPENDIX .....	32
RELATED PROCEEDINGS APPENDIX .....	33

**REAL-PARTY-IN-INTEREST**  
**(37 C.F.R. § 41.37(C)(1)(i))**

The Appellants in the present appeal are Jonathan J. Oliver, Scott Roy, Scott D. Eikenberry, Bryan Kim, David Koblas, and Brian Wilson—the named inventors of U.S. patent application 10/650,487 (the '487 Application). The real-party-in-interest and assignee of record is SonicWALL, Inc. of Sunnyvale, California. An assignment by and between the Appellants and MailFrontier, Inc. is recorded at Reel 014347 and Frame 0825 of the U.S. Patent Office's Assignment Division; an assignment by and between MailFrontier, Inc. and the real-party-in-interest (SonicWALL, Inc.) is recorded at Reel 019500 and Frame 0065 of the U.S. Patent Office's Assignment Division.

**RELATED APPEALS AND INTERFERENCES**  
**(37 C.F.R. § 41.37(C)(1)(ii))**

The Appellants, the real-party-in-interest, and their undersigned representative are unaware of any related appeals and interferences that are concluded, ongoing, or otherwise prospective as of the date of submission of this BRIEF ON APPEAL.

**STATUS OF THE CLAIMS**  
**(37 C.F.R. § 41.37(C)(1)(iii))**

Independent claims 1, 20, 23, 24, 28, 29, 30, and 31 are presently pending. Dependent claims 2, 5-19, 22, and 25-27 are likewise pending and dependent (either directly or via an intermediate dependent claim) upon one of the aforementioned independent claims. All claims have been (at least) twice rejected. No claims have been allowed or are otherwise objected to by the Examiner.

The Appellants have elected to appeal only the rejection of independent claims 1, 20, 23, 24, 28, 29, 30, and 31. This election is made for purposes of administrative efficiency of the Board of Patent Appeals and Interferences and to maintain the focus and clarity of argument. This election should not be construed as a concurrence as to the basis for the rejection for any other claim of the '487 Application.

**STATUS OF AMENDMENTS**  
**(37 C.F.R. § 41.37(C)(1)(iv))**

As filed on August 27, 2003, the '487 Application included 31 total claims; claims 1, 20, 28, 29, 30, and 31 were independent. A non-final office action mailed August 24, 2006 indicated the pendency of claims 1-31. In a response dated November 3, 2006, all 31 claims were amended. Certain amendments were also made to the specification; those amendments did not constitute the introduction of new matter.

A final action mailed January 25, 2007 indicated the pendency of claims 1-31 and noted "the [November 2006] amendments to claims 1-31." *JANUARY 25, 2007 OFFICE ACTION*, 2. A further amendment was presented in the response dated April 25, 2007. In this response, independent claims 1, 20, 28, 29, 30, and 31 were amended as were dependent claims 22, 25, 26, and 27. Formerly dependent claims 23 and 24 were amended into independent form while claims 3, 4, and 21 were cancelled. An advisory action mailed May 8, 2007 indicated that the April 25 amendments would not be entered. The Appellants submitted a request for continued examination on July 25, 2007 to allow for entry of the aforementioned amendments of April 25, 2007.

On August 17, 2007, the Examiner issued a new non-final office action noting that the "submission filed on 7/25/07 has been entered"; that submission was inclusive of the April 25, 2007 amendments. *AUGUST 17, 2007 OFFICE ACTION*, 2. Following the submission of a notice of appeal on November 6, 2007, the Appellants—on February 5, 2008—filed an amendment after appeal but prior to the filing of (the present) brief on appeal. The February 5 amendment removed a "conditional claim limitation" in certain independent claims whereby "any possibility of indefiniteness [was] preemptively eliminated." *FEBRUARY 5, 2008 AMENDMENT*, 10. Entry of the amendment is presupposed as the amendment is believed to comply with MPEP § 714(I)(C), 37 C.F.R. § 41.33(a), and 37 C.F.R. § 1.116(b)(2).

Following the February 5 amendment, claims 1-2, 5-20, and 22-31 are pending. The rejection of independent claims 1, 20, 23, 24, 28, 29, 30, and 31 is appealed herewith.

SUMMARY OF THE CLAIMED SUBJECT MATTER  
(37 C.F.R. § 41.37(C)(1)(v))<sup>1</sup>

*Independent Claim 1*

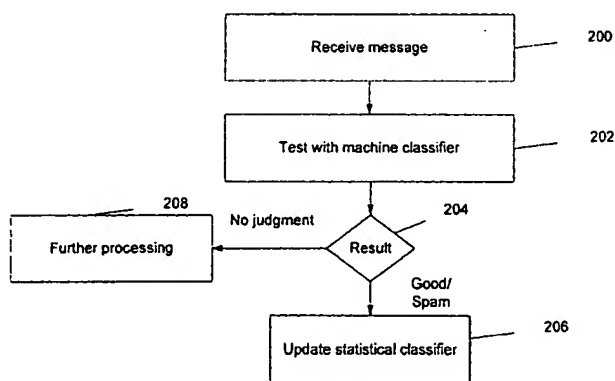
Claim 1 as presented for appeal recites:

A method for improving a statistical message classifier, comprising:  
testing a message with a machine classifier, wherein the machine classifier is capable of making a classification of the message and the machine classifier is a reliable classifier having a probability of erroneous classification of less than one percent; and  
updating the statistical message classifier according to the classification made by the machine classifier, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

See *infra* CLAIMS APPENDIX, 25.

FIGURE 2 of the '487 Application (and reproduced below) illustrates "the processing of a message by a system . . . that includes a statistical classifier."

*SPECIFICATION AS FILED*, p. 7, l. 9-10; FIG. 2.



<sup>1</sup> All references to the *SPECIFICATION AS FILED* are exemplary and are not intended to be limiting. The present references are made solely to satisfy the requirements of 37 C.F.R. § 41.37(c)(1)(v). No reference is intended—nor should it be construed—as an admission or denial as to any requirement for patentability, including but not limited to those requirements set forth in 35 U.S.C. § 112, ¶ 1 as they pertain to written description and enablement.

"Once a message is received" in step 200, the message "is tested with a machine classifier" in step 202. *SPECIFICATION AS FILED*, p. 7, l. 10-11. "The machine classifier is preferably a reliable one"; "a reliable classifier may classify 20% of the messages it processes as spam, 10% as non-spam, and makes no judgment on the rest 70% of the messages. Of the messages that are determined to be either spam or non-spam, the probability of erroneous classification may be less than 1%." *SPECIFICATION AS FILED*, p. 7, l. 11; p. 6, l. 5-8.

"The techniques [described above] may be used to update a statistical message classifier." *SPECIFICATION AS FILED*, p. 7, l. 19; see also *SPECIFICATION AS FILED*, p. 7, l. 13-14 ("[i]f the message is classified as either good or spam, the statistical classifier is updated"). "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS FILED*, p. 9, l. 21-22. "A message is parsed to obtain various features." *SPECIFICATION AS FILED*, p. 9, l. 22-p. 10, l. 1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." *SPECIFICATION AS FILED*, p. 10, l. 1-3.

### Independent Claim 20

Claim 20 as presented for appeal recites:

A method for improving a statistical message classifier comprising:  
testing a message with a first classifier wherein the first classifier is a reliable classifier and capable of making a first classification with a probability of erroneous classification of less than one percent;  
in the event that the message is classifiable by the first classifier, updating the statistical message classifier according to the first classification;  
in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of making a second classification; and  
updating the statistical message classifier according to the second classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

See *infra* CLAIMS APPENDIX, 27.

The method of independent claim 20 is akin, in certain respect, to FIGURE 3 (reproduced below), which illustrates "the processing of a message by another system embodiment that includes a statistical classifier." *SPECIFICATION AS FILED*, p. 8, l. 4-5; FIG. 3.

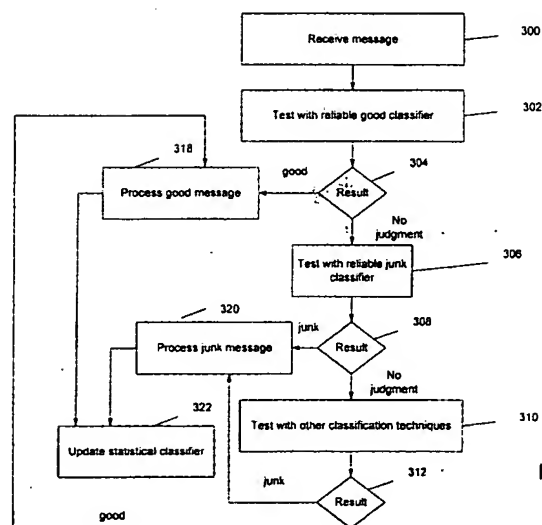


Figure 3

"Once a message is received" in step 300, "it is first tested with a reliable good classifier," which may be representative of a first classifier. *SPECIFICATION AS FILED*, p. 8, l. 5-6. "The testing result may indicate that the message is good" whereby "control is transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 8, l. 9-10; p. 9, l. 7-8.

"If, however, the reliable good classifier makes no judgment . . . the message is further tested with a reliable junk classifier." *SPECIFICATION AS FILED*, p. 8, l. 12-14. Control may then be "transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 9, l. 8. "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS FILED*, p. 9, l. 21-22. "A message is parsed to obtain various features." *SPECIFICATION AS FILED*, p. 9, l. 22-p. 10, l. 1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." *SPECIFICATION AS FILED*, p. 10, l. 1-3.



### *Independent Claim 23*

Claim 23 as presented for appeal recites:

A method for improving a statistical message classifier comprising:  
    testing a message with a first classifier wherein the first classifier  
        is a reliable good classifier capable of making a first  
        classification, wherein a probability of erroneous  
        classification is less than one percent;  
    in the event that the message is classifiable by the first classifier,  
        updating the statistical message classifier according to the  
        first classification;  
    in the event that the first classifier does not make the  
        classification, testing the message with a second classifier,  
        wherein the second classifier is capable of making a second  
        classification; and  
    updating the statistical message classifier according to the second  
        classification, wherein the statistical message classifier is  
        configured to detect an unsolicited message and comprises  
        a knowledge base that tracks the spam probability of  
        features in classified messages.

See *infra CLAIMS APPENDIX*, 28.

The method of independent claim 23 is akin, in certain respect, to FIGURE 3, which illustrates "the processing of a message by another system embodiment that includes a statistical classifier." *SPECIFICATION AS FILED*, p. 8, l. 4-5. Claim 23 is also similar in certain respects to independent claim 20, with the exception that the classifier in claim 23 is a 'good' classifier. In this regard, "[o]nce a message is received" in step 300, "it is first tested with a reliable good classifier." *SPECIFICATION AS FILED*, p. 8, l. 5-6. "The testing result may indicate that the message is good" whereby "control is transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 8, l. 9-10; p. 9, l. 7-8.

"If, however, the reliable good classifier makes no judgment . . . the message is further tested with a reliable junk classifier." *SPECIFICATION AS FILED*, p. 8, l. 12-14. Control may then be "transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 9, l. 8. "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS FILED*, p. 9, l. 21-22. "A message is parsed to obtain various features." *SPECIFICATION AS*

FILED, P. 9, l. 22-p. 10, l. 1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." SPECIFICATION AS FILED, P. 10, l. 1-3.

#### ***Independent Claim 24***

Claim 24 as presented for appeal recites:

A method for improving a statistical message classifier comprising:  
testing a message with a first classifier, wherein the first classifier is a reliable junk classifier capable of making a first classification, wherein a probability of erroneous classification is less than one percent;  
in the event that the message is classifiable by the first classifier, updating the statistical message classifier according to the first classification;  
in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of making a second classification; and  
updating the statistical message classifier according to the second classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

See infra CLAIMS APPENDIX, 29.

The method of independent claim 23 is akin, in certain respect, to FIGURE 3, which illustrates "the processing of a message by another system embodiment that includes a statistical classifier." SPECIFICATION AS FILED, p. 8, l. 4-5. Claim 23 is also similar in certain respects to independent claim 20, with the exception that the classifier in claim 23 is a 'junk' classifier. In this regard, "[o]nce a message is received" in step 300, "it is first tested with a reliable good classifier." SPECIFICATION AS FILED, p. 8, l. 5-6. "The testing result may indicate that the message is good" whereby "control is transferred to updating the statistical classifier" in step 322. SPECIFICATION AS FILED, p. 8, l. 9-10; p. 9, l. 7-8.

"If, however, the reliable good classifier makes no judgment . . . the message is further tested with a reliable junk classifier." *SPECIFICATION AS FILED*, p. 8, l. 12-14. Control may then be "transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 9, l. 8. "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS FILED*, p. 9, l. 21-22. "A message is parsed to obtain various features." *SPECIFICATION AS FILED*, p. 9, l. 22-p. 10, l. 1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." *SPECIFICATION AS FILED*, p. 10, l. 1-3.

#### *Independent Claim 28*

Claim 28 as presented for appeal recites:

A system for classifying a message, comprising:

- a statistical message classifier configured to detect an unsolicited message and comprising a knowledge base that tracks the spam probability of features in classified messages; and
- a machine classifier coupled to the statistical message classifier, the machine classifier configured to test the message, wherein the machine classifier is capable of making a reliable classification having a probability of erroneous classification of less than one percent, and the statistical message classifier is updated according to the reliable classification made by the machine classifier.

See *infra CLAIMS APPENDIX*, 30.

FIGURE 1, as reproduced below, "is a block diagram illustrating a statistical message filter embodiment." *SPECIFICATION AS FILED, P. 5, l. 13; FIG. 1.*

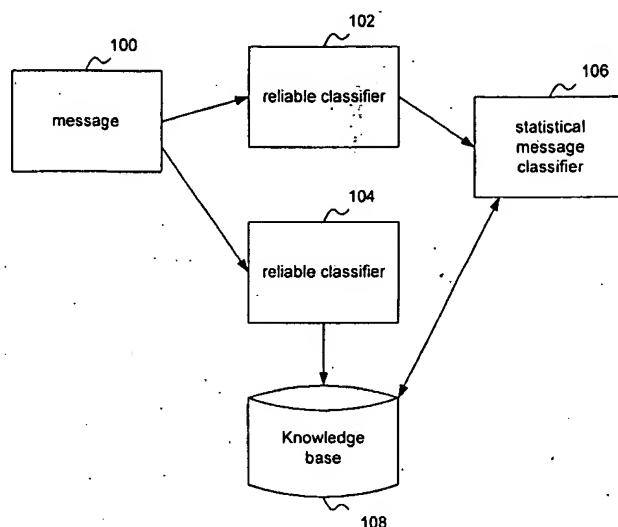


FIG. 1

"Reliable classifiers 102 and 104 process incoming message 100 to make a classification." *SPECIFICATION AS FILED, P. 5, l. 2.* "A statistical message classifier 106 is trained using the results from the reliable classifiers periodically or as messages are processed" as "[t]he reliable classifier may directly update the statistical message classifier, or store the results in a knowledge base that is then used to update the statistical message classifier." *SPECIFICATION AS FILED, P. 5, l. 18-21.*

*Independent Claim 29*

Claim 29 as presented for appeal recites:

A system for improving a statistical message classifier, comprising:  
a first classifier configured to test the message, the first classifier capable of reliably making a first classification and having a probability of erroneous classification of less than one percent, the first classifier further configured to update the statistical message classifier according to the first classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages; and  
a second classifier coupled to the first classifier, capable of reliably making a second classification, and configured to further test the message in the event that the message is not classifiable by the first classifier.

See *infra CLAIMS APPENDIX*, 30.

FIGURE 1 "is a block diagram illustrating a statistical message filter embodiment." *SPECIFICATION AS FILED*, P. 5, l. 13; FIG. 1. "Reliable classifiers 102 and 104 process incoming message 100 to make a classification." *SPECIFICATION AS FILED*, P. 5, l. 2. "A statistical message classifier 106 is trained using the results from the reliable classifiers periodically or as messages are processed" as "[t]he reliable classifier may directly update the statistical message classifier, or store the results in a knowledge base that is then used to update the statistical message classifier." *SPECIFICATION AS FILED*, P. 5, l. 18-21.

### *Independent Claim 30*

Claim 30 as presented for appeal recites:

A computer readable storage medium having embodied thereon a program, the program being executable by a processor to perform a method for improving a statistical message classifier, the method comprising:

- testing a message with a machine classifier, wherein the machine classifier is capable of making a classification of the message and the machine classifier is a reliable classifier having a probability of erroneous classification of less than one percent; and
- updating the statistical message classifier according to the reliable classification made by the machine classifier, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

See *infra CLAIMS APPENDIX*, 31.

The '487 Application discloses a computer readable medium having embodied thereon computer instructions. See *SPECIFICATION AS FILED*, p. 17, l. 4-6. This storage medium may be implemented for "the processing of a message by a system . . . that includes a statistical classifier." *SPECIFICATION AS FILED*, p. 7, l. 9-10. "Once a message is received" in step 200, the message "is tested with a machine classifier" in step 202. *SPECIFICATION AS FILED*, p. 7, l. 10-11. "The machine classifier is preferably a reliable one"; "a reliable classifier may classify 20% of the messages it processes as spam, 10% as non-spam, and makes no judgment on the rest 70% of the messages. Of the messages that are determined to be either spam or non-spam, the probability of erroneous classification may be less than 1%." *SPECIFICATION AS FILED*, p. 7, l. 11; p. 6, l. 5-8.

"The techniques [described above] may be used to update a statistical message classifier." *SPECIFICATION AS FILED*, p. 7, l. 19; see also *SPECIFICATION AS FILED*, p. 7, l. 13-14 ("[i]f the message is classified as either good or spam, the statistical classifier is updated"). "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS FILED*, p. 9, l. 21-22. "A

message is parsed to obtain various features." *SPECIFICATION AS FILED*, P. 9, l. 22-p. 10, l.

1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." *SPECIFICATION AS FILED*, P. 10, l. 1-3.

### *Independent Claim 31*

Claim 31 as presented for appeal recites:

A computer readable storage medium having embodied thereon a program, the program being executable to perform a method for improving a statistical message classifier, the method comprising:

- testing a message with a first classifier wherein the first classifier is capable of reliably making a first classification and having a probability of erroneous classification of less than one percent;

- in the event that the first classifier makes the classification, updating the statistical message classifier according to the first classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages;

- in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of reliably making a second classification;

- updating the statistical message classifier according to the second classification.

See *infra CLAIMS APPENDIX*, 31.

The '487 Application discloses a computer readable medium having embodied thereon computer instructions. See *SPECIFICATION AS FILED*, p. 17, l. 12-14. This storage medium may be implemented for "the processing of a message by another system embodiment that includes a statistical classifier." *SPECIFICATION AS FILED*, p. 8, l. 4-5.

"Once a message is received" in step 300, "it is first tested with a reliable good classifier," which may be representative of a first classifier. *SPECIFICATION AS FILED*, p. 8, l. 5-6. "The testing result may indicate that the message is good" whereby "control is

transferred to updating the statistical classifier" in step 322. *SPECIFICATION AS FILED*, p. 8, l. 9-10; p. 9, l. 7-8.

"If, however, the reliable good classifier makes no judgment . . . the message is further tested with a reliable junk classifier." *SPECIFICATION AS FILED*, p. 8, l. 12-14.

Control may then be "transferred to updating the statistical classifier" in step 322.

*SPECIFICATION AS FILED*, p. 9, l. 8. "The reliable classifiers classify received messages and provide the statistical message classifier with a knowledge base." *SPECIFICATION AS*

*FILED*, p. 9, l. 21-22. "A message is parsed to obtain various features." *SPECIFICATION AS*

*FILED*, p. 9, l. 22-p. 10, l. 1. A 'good message' results in "the 'good count' for each of the features in the message [to be] incremented" whereas a 'spam' message results to "the 'spam count' for each of the features [to be] decremented." *SPECIFICATION AS FILED*, p. 10,

l. 1-3.



GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL  
(37 C.F.R. § 41.37(C)(1)(vi))

- (1) Do each of the independent claims require a 'Classifier' Having or Capable of Having an Erroneous Classification Probability of 'Less than One Percent'?
- (2) Does U.S. Patent Publication Number 2005/0015626 to *Chasin* Disclose an Erroneous Classification Probability of Less than One Percent with 'Sufficient Specificity'?
- (3) Is an Erroneous Classification Probability of Less than One Percent 'Necessarily Present' in *Chasin*?
- (4) Has the Examiner Provided a 'Motivational Statement' as to any Purported Obviousness of an Erroneous Classification Probability of Less than One Percent with respect to *Chasin*?
- (5) Is *Chasin* Enabled with Respect to an Erroneous Classification Probability of 'Less Than One Percent'?

ARGUMENT  
(37 C.F.R. § 41.37(C)(1)(vii))

I. *EACH OF THE CLAIMS RECITE A 'CLASSIFIER' HAVING OR CAPABLE OF HAVING AN ERRONEOUS CLASSIFICATION PROBABILITY OF 'LESS THAN ONE PERCENT'*

When evaluating the scope of a claim, every limitation in the claim must be considered. See *Diamond v. Diehr*, 450 U.S. 175, 189 (1981). In this context, the Appellants note that each of the independent claims of the '487 Application recite some variant of a classifier. See infra CLAIMS APPENDIX 25-31. In the case of independent claims 1, 20, and 30 the classifier has 'a probability of erroneous classification of less than one percent.' See infra CLAIMS APPENDIX 25, 27, 31. Similarly, the 'probability of erroneous classification' in claims 23 and 24 is 'less than one percent.' The classifier in independent claims 28, 29, and 31 is capable of making a reliable classification 'having a probability of erroneous classification of less than one percent.' See infra CLAIMS APPENDIX, 30, 31.

Claim terms are given "their broadest reasonable construction" "in light of the specification as it would be interpreted by one of ordinary skill in the art." MPEP § 2111; *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. See *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999). This means that the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. See *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989). This is in accord with the Federal Circuit's holding in *Chef America, Inc. v. Lamb-Weston, Inc.*, which states that ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. 358 F.3d 1371, 1372 (Fed. Cir. 2004).

The claims recite an erroneous classification probability of less than one percent. The broadest reasonable interpretation of those claim terms is that the erroneous

classification probability be less than one percent. See MPEP § 2111 and *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d at 1364. This interpretation is entirely consistent with the specification, which states that “[t]he reliability of a classifier depends on how accurately it makes a classification”; “[o]f the messages that are determined to be either spam or non-spam, the probability of erroneous classification may be less than 1%.”

*SPECIFICATION AS FILED*, 6 at l. 1, l. 7-8; see *In re Cortright*, 165 F.3d at 1359.

The Appellant’s aforementioned interpretation of the claims—that the erroneous classification probability be less than one percent—corresponds to the plain meaning of the words while remaining consistent with the specification. See *In re Zletz*, 893 F.2d at 321. These words are ordinary, simple English words; their meaning is clear and unquestionable and there is no indication that their use in the present context changes their meaning. As such, these words must be construed to mean exactly what they say. See *Chef America*, 358 F.3d at 1372.

## II. A PURPORTED RANGE IN THE CITED ART MUST BE DISCLOSED WITH ‘SUFFICIENT SPECIFICITY’

In light of the construction proffered above, for the Examiner to support a rejection based on a ‘purported range’ requires that the purported range include a reading of less than one percent and be described as such with ‘sufficient specificity.’ When the prior art discloses a range that touches or overlaps the claimed range but fails to disclose any specific examples falling *within* the claimed range, a case by case determination must be made as to patentability. See MPEP § 2131.03(II).

For example, if the claims are directed to a narrow range, and the reference teaches a broad range, depending on the other facts of the case, it may be reasonable to conclude that the narrow range is not disclosed with ‘sufficient specificity’ to constitute an anticipation of the claims. See MPEP § 2131.03(II) (citing *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999 (Fed. Cir. 2006)). The Examiner has failed to disclose such specificity in contending that the *Chasin* reference discloses the ‘less than 1%’ element. The Examiner cites that portion of *Chasin* that states “the confidence ratio used for

classifying a message as spam or junk can be increased to a relatively high value, e.g., approaching 100 percent." *Chain*, [0011]. **Approaching** a 'relatively high value' is **not equivalent** to **less than** one percent as found in the independent claims.

Per *Chasin*, the high value could be (i.e., the confidence ratio is) 80 percent. This would, in turn, constitute an erroneous classification probability of 20 percent, which does not disclose the disputed element of the Appellants' claim. Similarly, an even higher value of 90 percent, which would constitute an erroneous classification probability of 10 percent, still fails to disclose the 'less than 1 percent' limitation as is found in each of the independent claims. While the Examiner contends that "one can set the confidence level [of *Chasin*] at any level to a 90 or 95 percent or higher to limit the number of false positives" and, in that regard, "*Chasin* does teach the erroneous classification probability is less than 1%," absent the disclosure of 'sufficient specificity' as to this specific recitation of the claims, the Examiner cannot maintain a rejection based on *Chasin* in combination with any other reference of record and the Examiner's rejection is overcome. MAY 8, 2007 OFFICE ACTION, 2.

### III. *INHERENCY REQUIRES THAT THE MISSING CLAIM ELEMENT NECESSARILY BE PRESENT IN THE CITED ART*

As noted above, there is no indication in *Chasin* that the erroneous classification probability is less than 1% and to suggest the same would be an unsupported extrapolation of the purported teachings of *Chasin*. See *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993) (finding that the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic); see also *In re Robertson*, 169 F.3d 743, 745 (stating that "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is **necessarily present** in the thing described in the reference" as "[i]nherency . . . may not be established by probabilities or possibilities") (emphasis added).

The *Chasin* reference never explicitly states that the minimum scores and confidence levels result in an erroneous classification level of **less than 1%**. See *Chasin*,

[0052]. *Chasin* states nothing more than such scores/levels *may be* higher than 95 percent; the fact that the score/level *may be* higher than 95 percent does not mean that its corresponding confidence level *is* less than 1%. For example, a score / level of 96% would constitute a score / level of greater than 95 percent but it would not teach the Applicants' presently claimed limitation of an erroneous classification level of less than 1%. Absent such an extrapolation being a necessary finding as to the disclosure of *Chasin*, the Examiner cannot maintain a rejection based on *Chasin* in combination with any other reference of record and the Examiner's rejection is overcome.

#### IV. THE PURPORTED OBVIOUSNESS OF A RANGE REQUIRES A MOTIVATIONAL STATEMENT AS TO THE SAME

While the Appellants appreciate that a 35 U.S.C. § 103(a) rejection (with respect to the range itself) *may be* permitted if it is unclear that the reference teaches the range with 'sufficient specificity,' "[t]he examiner **must . . . provide . . . a motivational statement regarding obviousness.**" MPEP § 2131.03(II) (citing *Ex Parte Lee*, 31 U.S.P.Q.2d 1105 (Bd. Pat. App. & Inter. 1993) (emphasis added)). Further, a rejection of obviousness with respect to the range itself must "take differences [between the cited and claimed ranges] into account." MPEP § 2131.03(III) (citing *Titanium Metals Corp. v. Banner*, 778 F.2d 775 (Fed. Cir. 1985)). In this context, the Federal Circuit's holding in the matter of *In re Harris* is of particular relevance wherein it was found that if the disclosed range of a cited reference is so broad as to encompass a large number of possibilities that the situation becomes analogous to the obviousness of a species when the prior art broadly disclosed a genus. See *In re Harris*, 409 F.3d 1339 (Fed. Cir. 2005). Notwithstanding the Appellants having previously made this argument, no motivation was forthcoming from the Examiner and the rejection based on *Chasin* is, again, overcome.

V. *CHASIN IS NOT ENABLED WITH RESPECT TO AN ERRONEOUS CLASSIFICATION PROBABILITY OF 'LESS THAN ONE PERCENT'*

If the Examiner insists that the *Chasin* references does, in fact, teach an erroneous classification level of less than 1%, the Appellants not only traverse the obviousness of such a range (as set forth above) but the operability of the *Chasin* reference with respect to this particular range. See *In re Hoeksema*, 399 F.2d 269 (CCPA 1968) (requiring that a cited reference have an enabling disclosure). As noted by the Federal Circuit, mere naming or description of the subject matter is insufficient with respect to enablement. See *Elan Pharm., Inc. v. Mayo Found. for Med. Educ. & Research*, 346 F.3d 1051, 1054 (Fed. Cir. 2003). The Appellants contend that *Chasin*—at best—merely describes a possibility of approaching 1%.

If *Chasin* were capable of operating at less than a 1% erroneous classification rate, then *Chasin* would have stated the same. The Appellants contend that there is no reason why *Chasin* would only disclose operability within an express and specific range (*i.e.*, 90 to 95 percent) if *Chasin* was, in fact, capable of operating in excess of 99% unless *Chasin* was incapable of doing so. In that regard, the Applicants contend that *Chasin*'s failure to disclose operation in excess of 99% (resulting in an erroneous classification of less than 1%) suggests that it could not operate within that range while still operating within the legal confines of best mode and enablement as required by 35 U.S.C. § 112, ¶ 1. As such, the Appellants contend that should the Examiner provide the basis of an obviousness rejection, such a rejection would violate the operational requirements of a prior art reference. The result is that the Examiner's rejection would, again, be overcome.

## CONCLUSION AND REQUESTED RELIEF

Each of the independent claims of the present application require a classifier having or capable of having an erroneous classification probability of less than one percent. U.S. Patent Publication Number 2005/0015626 to *Chasin* fails to disclose an erroneous classification probability of less than one percent, especially with 'sufficient specificity' as is required by law. Further, an erroneous classification probability of less than one percent is not 'necessarily present' in *Chasin*, thus a rejection based on inherency is inappropriate. Nor has the Examiner provided a 'motivational statement' as to any purported obviousness of an erroneous classification probability of less than one percent. Should the Examiner make such an assertion, the Appellants contend that such an interpretation or modification of *Chasin* would cause the reference to no longer be enabled with respect to the erroneous classification probability.

In light of the aforementioned, and the fact that the 'other' reference in the Examiner's 35 U.S.C. § 103(a) rejection—*Andrews et al.*—also fails to disclose an erroneous classification probability, much less one that is less than 1% per the Appellants' independent claims, the Examiner has failed to evidence a *prima facie* case of obviousness and the 35 U.S.C. § 103(a) rejection is overcome.

In light of the Examiner's failure to disclose each and every element of the presently claimed invention, a *prima facie* case of obviousness has not been established. As such, the Examiner's rejection is overcome. The Appellants, therefore, respectfully request that the final rejection be overturned and the present application remanded with instructions to allow the same.

Respectfully submitted,  
Jonathan J. Oliver et al.

February 6, 2008

By:



KENNETH M. KASLOW, REG. NO. 32,246

**CARR & FERRELL LLP**

2200 GENG ROAD

PALO ALTO, CA 94303

T: 650.812.3400

F: 650.812.3444

ATTORNEY FOR THE APPELLANT  
AND REAL-PARTY-IN-INTEREST



**CLAIMS APPENDIX**  
**(37 C.F.R. § 41.37(C)(1)(viii))**

The claims involved in the present appeal following the February 5, 2008 amendment submitted in accordance with MPEP § 714(I)(C), 37 C.F.R. § 41.33(a), and 37 C.F.R. § 1.116(b)(2) are as follows:

1. A method for improving a statistical message classifier, comprising:
  - testing a message with a machine classifier, wherein the machine classifier is capable of making a classification of the message and the machine classifier is a reliable classifier having a probability of erroneous classification of less than one percent; and
  - updating the statistical message classifier according to the classification made by the machine classifier, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.
2. The method for improving a message classifier as recited in claim 1, wherein the machine classifier is further capable of making no classification on the message.
5. The method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a white list classifier.
6. The method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a collaborative fingerprinting classifier.
7. The method for improving a message classifier as recited in claim 1, wherein the machine classifier includes an image analyzer.

8. The method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a probe account.
9. The method for improving a message classifier as recited in claim 1, wherein the machine classifier includes a challenge-response classifier.
10. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises updating a knowledge base used to train the statistical message classifier.
11. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises updating a statistical model used by the statistical message classifier.
12. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature.
13. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature and updating a counter corresponding to the feature.
14. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature and updating a training set.
15. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature and computing a spam probability associated with the feature.

16. The method for improving a message classifier as recited in claim 1, wherein updating the statistical message classifier comprises parsing the message to obtain a feature and computing a score associated with the feature.
17. The method for improving a message classifier as recited in claim 1, wherein the message is a previously stored message.
18. The method for improving a message classifier as recited in claim 1, wherein the message is an incoming message.
19. The method for improving a message classifier as recited in claim 1, in the event that the message is not classifiable by the classifier, further comprising testing the message with another machine classifier.
20. A method for improving a statistical message classifier comprising:
  - testing a message with a first classifier wherein the first classifier is a reliable classifier and capable of making a first classification with a probability of erroneous classification of less than one percent;
  - in the event that the message is classifiable by the first classifier, updating the statistical message classifier according to the first classification;
  - in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of making a second classification; and
  - updating the statistical message classifier according to the second classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

22. The method for improving a message classifier as recited in claim 20, wherein the second classifier is a reliable classifier having a probability of erroneous classification of less than one percent.

23. A method for improving a statistical message classifier comprising:

testing a message with a first classifier wherein the first classifier is a reliable good classifier capable of making a first classification, wherein a probability of erroneous classification is less than one percent;  
in the event that the message is classifiable by the first classifier, updating the statistical message classifier according to the first classification;  
in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of making a second classification; and  
updating the statistical message classifier according to the second classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

24. A method for improving a statistical message classifier comprising:
- testing a message with a first classifier, wherein the first classifier is a reliable junk classifier capable of making a first classification, wherein a probability of erroneous classification is less than one percent;
  - in the event that the message is classifiable by the first classifier, updating the statistical message classifier according to the first classification;
  - in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of making a second classification; and
  - updating the statistical message classifier according to the second classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.
25. The method for improving a message classifier as recited in claim 23, wherein the second classifier is a reliable good classifier having a probability of erroneous classification of less than one percent.
26. The method for improving a message classifier as recited in claim 24, wherein the second classifier is a reliable junk classifier having a probability of erroneous classification of less than one percent.
27. The method for improving a message classifier as recited in claim 20, wherein the first classifier is user-augmented.

28. A system for classifying a message, comprising:

- a statistical message classifier configured to detect an unsolicited message and comprising a knowledge base that tracks the spam probability of features in classified messages; and
- a machine classifier coupled to the statistical message classifier, the machine classifier configured to test the message, wherein the machine classifier is capable of making a reliable classification having a probability of erroneous classification of less than one percent, and the statistical message classifier is updated according to the reliable classification made by the machine classifier.

29. A system for improving a statistical message classifier, comprising:

- a first classifier configured to test the message, the first classifier capable of reliably making a first classification and having a probability of erroneous classification of less than one percent, the first classifier further configured to update the statistical message classifier according to the first classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages; and
- a second classifier coupled to the first classifier, capable of reliably making a second classification, and configured to further test the message in the event that the message is not classifiable by the first classifier.

30. A computer readable storage medium having embodied thereon a program, the program being executable by a processor to perform a method for improving a statistical message classifier, the method comprising:

- testing a message with a machine classifier, wherein the machine classifier is capable of making a classification of the message and the machine classifier is a reliable classifier having a probability of erroneous classification of less than one percent; and
- updating the statistical message classifier according to the reliable classification made by the machine classifier, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages.

31. A computer readable storage medium having embodied thereon a program, the program being executable to perform a method for improving a statistical message classifier, the method comprising:

- testing a message with a first classifier wherein the first classifier is capable of reliably making a first classification and having a probability of erroneous classification of less than one percent;
- in the event that the first classifier makes the classification, updating the statistical message classifier according to the first classification, wherein the statistical message classifier is configured to detect an unsolicited message and comprises a knowledge base that tracks the spam probability of features in classified messages;
- in the event that the first classifier does not make the classification, testing the message with a second classifier, wherein the second classifier is capable of reliably making a second classification;
- updating the statistical message classifier according to the second classification.

**EVIDENCE APPENDIX**  
**37 C.F.R. § 41.37(C)(1)(ix)**

No evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 has been presented or entered during prosecution of the present application. As such, no evidence under the aforementioned sections is presented or referenced herewith.



**RELATED PROCEEDINGS APPENDIX**  
**37 C.F.R. § 41.37(C)(1)(x)**

No related proceedings including appeals or interferences—either concluded, ongoing, or otherwise prospective—are known to the Appellants, real-party-in-interest, nor their agents and representatives. As such, no decisions or documentation related to such a proceedings is presented or referenced herewith.